ABSTRACT

One embodiment provides a computer-implemented method for processing data on a node. In this embodiment, the node first determines if a first transit buffer on the node is empty, wherein the first transit buffer is capable of holding one or more data packets destined for another node. If the first transit buffer is empty, the node transmits in a first direction a data packet stored in a first local buffer, wherein the first local buffer is capable of holding one or more data packets originating from the node. If, however, the first transit buffer is not empty, the node transmits in the first direction one or more data packets stored in the first transit buffer if a first transmission condition is satisfied. If the first transmission condition is not satisfied, the node transmits in the first direction a data packet stored in the first local buffer.